

Modern Concepts of Cardiovascular Disease

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PUBLIC HEALTH IN THE CARDIOVASCULAR DISEASE FIELD*

Only a short while ago one would not have had the temerity to think of cardiovascular disease as one which might be vulnerable in any significant way to public health attack. The public had little comprehension of the heart disease problem and for the most part accepted its disabling consequences and its mortality with a stoical fatalism. The medical profession itself could hardly see a strategy inclusive of more than increased attention to research and the application of current knowledge through the individual physician-patient relationship. Stimulated, however, by the growing enormity of the problem and the meager resources available for solving it, a number of leaders in the field resolved to remedy the situation.

It was evident that the public had to be given some understanding of what the situation is and what they could do about it. The American Heart Association with a confidence inspired by the success of other voluntary health agencies, boldly set forth to improve the public understanding. This in itself was an important application of public health principles. In this endeavor it rather soon became apparent that there was quite a discrepancy between the knowledge we already possess and its application. It was discovered that present-day public health methods could be used appropriately in the cardiovascular disease field for the benefit of the individual and his community, and to the satisfaction of the physician. It is quite true, of course, that we have had for years excellent cardiac clinics and well-run rheumatic fever convalescent homes, but these have been inadequate to the magnitude of the problem. One of the first jobs of a public health program is to see to it that the benefits to be obtained through use of current knowledge are understood by both professional and lay persons and that they are stimulated to provide these benefits for their communities.

Without knowing the cause of the three affections of the cardiovascular system that account for more than 90 per cent of all heart disease—arteriosclerotic, hypertensive, and rheumatic heart disease—there is still much that can be done to lessen disability, to prevent untimely death, provide many years of happy living, and to keep economically independent a significant number of our citizens. An increasing number of health agencies, voluntary and

official, propose to do these things by the use of techniques developed by public health personnel in their concern with the mass application of medical knowledge. Let us see how these public health methods may be applied specifically to the cardiovascular diseases.

First, *health education*. The approach here would be calculated to dispel fear and replace it with a reasonable, more objective viewpoint. This will necessitate giving people adequate and accurate information, in so far as we have it, to the end that they may know how to protect themselves from unnecessary complications, live willingly up to but not beyond their capacities and, most important, know when they should consult a physician. To do these things without creating an undue number of cardiac neurotics is a real challenge and a severe test for our educational skills. Certain it is, however, that we must take people as aware of the importance of an attack of acute indigestion with pain radiating down the left arm as they now are of an attack of acute indigestion with pain in the right lower quadrant. Certain it is, too, that parents and teachers must be aware of the dangers of upper respiratory infections in children who have had a previous attack of rheumatic fever.

The person who has had a coronary occlusion should know that it is not incompatible with, often times, many years of useful living. The employer should know that proper job placement of heart disease patients can be a rewarding experience for both himself, the employee and the community. Individuals must know, too, that occasional erratic heart beats do not mean organic heart disease, but rather are an indication that they have perhaps overindulged in some of "the better things of life."

Physicians have the responsibility to learn better the art of counselling persons who have or think they have heart disease so that on the one hand, they will live up to their full capacities, and on the other hand, will have their fears placated and not be tempted to take their pulses every hour or so.

Nurses, medical social workers, vocational counsellors and other professional personnel should have more knowledge about the contributions they can make and about those particular technical skills required to minister properly to cardiac patients.

Let us now consider the application of case-finding and diagnostic methods as they pertain to the cardiovascular diseases. Here we think in terms of community services and facilities.

HOTEL RESERVATIONS FOR ANNUAL MEETING

All those desiring to make hotel reservations for the Annual Meeting of the American Heart Association, June 22-25, 1950, must make application through the Hotel Committee of the American Medical Association, Convention Bureau, 200 Civic Auditorium, San Francisco 2, California.

*This article represents the views of the author and should not be construed as the official views of the American Heart Association.

It is generally agreed that school health services should be carried out so that no illnesses or physical defects long escape detection. We, therefore, should support and initiate where appropriate, measures designed to strengthen school health programs to the end that cardiac cases will be brought to light early. It should be remarked parenthetically that we will be as interested in removing the label of heart disease as we will be in placing it where it belongs. Rheumatic heart disease, for example, is often as frequently over-diagnosed as it is under-diagnosed.

The American Heart Association and the National Tuberculosis Association have a joint committee studying the use of mass X-ray surveys as a tool for cardiac disease case-finding. It appears probable that such surveys, with some modifications, will prove valuable as a case-finding device in the cardiovascular disease field. Several studies are under way that may give us new screening methods.

It must be emphasized, however, that the school health examinations and mass X-ray surveys are screening procedures only and will require precise diagnostic services and facilities either through clinics or private consultants. The importance of arranging for proper diagnostic services and facilities before embarking on these case-finding programs should be borne in mind constantly. Because of the difficulties in arriving at precise diagnoses in the cardiovascular disease field, and the importance of doing so, the talents of specialists will be required. These talents may best be utilized as a consultant service provided for the benefit of the family doctor as well as of the patient. In many instances such services can serve as an integral part of the professional educational program.

Since cardiovascular diseases are chronic in nature, we can agree that our community services and facilities must go beyond case-finding and diagnosis. It is essential that attention be given to the follow-up of diagnosed cases if they are to receive the full benefits of what we know.

It is in this follow-up attention that cooperation with many other community agencies is so pre-eminently desirable. Involving, as it does, hospital and convalescent care, home nursing, special teaching services, family case work, occupational therapy, vocational counselling, training and rehabilitation, job placement, and even psychiatric counselling, it behooves all to integrate their efforts. Our citizens, in return for their support, will demand that these services be efficient, economical and effective, for the cost is great—but the rewards can be greater. One of the prime objectives of a cardiovascular disease program should be to coordinate its public health program with others. The appeal for support will be made then with a clear conscience that the resources made available for it will be used to achieve practical ends at the least possible cost. Those who assume responsibilities for cardiovascular disease programs should, along with others concerned with the chronic diseases, continuously explore ways in which they can most effectively help people help themselves to the benefits of our rapidly expanding health knowledge.

This brief statement of the public health objectives of a cardiovascular disease program would not be complete without an attempt to answer a

question many of you have asked yourselves. What can be done to *prevent* disease of the cardiovascular system? As you well know, a very good preventive job indeed has been done in those diseases where we know the specific causative agent. I refer to the cardiovascular diseases resulting from diphtheria, syphilis, hyperthyroidism, and beri-beri.

Consider, now, some of the preventive measures that have proved effective or appear to have promise of being effective in those diseases the cause of which is unknown, or obscure. There is good evidence that both the incidence and severity of rheumatic heart disease has declined in the past few years. It is quite likely that this is the result, in part at least, of the better treatment of hemolytic streptococcal infections made possible by the sulfonamides and antibiotics. These agents are also being effectively used as prophylaxis to prevent the damage inherent in recurrent attacks. Used at the time of tooth extractions and oral and upper respiratory tract surgical procedures, they are effective in preventing sub-acute bacterial endocarditis. This disease, formerly almost one hundred per cent fatal, can now be cured in a high percentage of cases with penicillin.

An unknown number of cases of congenital heart disease are due to infection with German measles early in pregnancy. Prevention would call for protection of the pregnant woman from exposure, and possibly exposure of females to the disease before the child-bearing age. You are familiar with the advances made in the surgical treatment of congenital cardiac defects and how it is preventing a life of invalidism for many children.

When we come to arteriosclerotic and hypertensive heart disease, we must candidly face the fact that we are only approaching the threshold of knowledge that may lead to practical preventive measures. Prevention, particularly of diseases resulting from the aging process, is in essence the promotion of optimal health throughout life. It should be pointed out, for example, that since obesity may be a contributing factor in both hypertension and arteriosclerotic heart disease, public health nutrition programs should be concerned with over-nutrition as well as under-nutrition. The nutritionist, too, can be of valuable assistance in carrying out the physician's orders and instructing patients in the use of the low sodium diet for lessening the disabilities incident to congestive heart failure and possibly hypertension. No doubt other indirect public health approaches such as these will occur to you.

What has been but briefly sketched above will indicate that public health people have quite practical contributions to make in solving the many complex problems presented by the cardiovascular diseases. We can go forward with the tools and knowledge presently at our command in full confidence that we can attain a fair measure of success. We can also have high hope that the future will bring to us new tools and knowledge with which to approach, even more successfully, this very important public health task.

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American Heart Association

INTERNATIONAL CONGRESS ON CARDIOLOGY (CARDIOVASCULAR DISEASES)

The First International Congress on Cardiology will be held in Paris, France, September 3-9, 1950. Arrangements for transportation and hotel accommodations may be made by addressing Mr. Gabriel Reiner, Cosmos Travel Bureau, Inc., 40 West 45th Street, New York 19, N. Y.

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